

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/368,201 08/04/99 KNOPLIOCH J 14XZ00047

MM91/0130

EXAMINER

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SMITH, R

ART UNIT

PAPER NUMBER

2859

DATE MAILED:

01/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)
	09/368,201	KNOPLIOCH ET AL.
	Examiner R. Alexander Smith	Art Unit 2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 September 2000.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-15 and 17-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-15 and 17-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 04 August 1999 is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). _____.

16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152)

17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 20) Other: _____.

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DETAILED ACTION

Drawings

1. The drawings are objected to because figure 1 is of poor quality making it impossible to distinguish as to which segments the indicia 1-3 are labeling and which base points indicia 11-15 are labeling. Correction is required.

The applicant's response in Amendment B filed 26 September 2000 regarding figure 1 is noted. However, the examiner still finds the drawing unclear.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method steps of claims 1-15 and 17-20 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

Specification

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any

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person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

(c) In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

5. The specification is objected to under 37 CFR 1.71 because the specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

The applicant in the specification and amendment B discusses a simplified version of the two dimensional geometrical construct (shown in figures 2 and 3) which is well known in the art, but has not disclosed to one of ordinary skill in the art how the three dimensional geometrical construct works. The detailed description of the three dimensional method which describes how

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the points are defined is limited to lines 1-7 of page 6. These lines do not provide enough information to enable the applicant's invention.

In addition, the applicant's amendment B discloses that line 46 in figure 4 is not line 46 in figure 5 and has renumbered line 46 in figure 5 as 53; however, the facets 40 and 41 of figure 4 are still part of figure 5 and are bounded by what appears to be new segments 50-53. How can this be? Where is the specification's or amendment B's discussion for the three-dimensional estimation that addresses this change in bounding, or for that matter the change in shape, of the same facets 40 and 41 by new segments 50-53?

Claim Objections

6. Claims 1-15 and 17-20 are objected to because of the following informalities:

Claim 1: "shaped" in line 5 should be --shape-- and "being " in line 7 should be --is--.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to

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make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-15 and 17-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1: The applicant's amendment B filed 26 September 2000 has made changes to the specification and claims which corrected the problem with respect to films, parallel sections, and a plurality of films but has not made the specification or claims understandable. If the segments, e.g., segment 46 in figure 4, is divided to create second rank points, e.g., 47, then the result is basically, e.g., segment 46 in figure 4 being segmented at rank point 47 located on segment 46. How does this get any closer to the three-dimensional object since 47 and the divided segments are still coaxial with segment 46? This applies to the all additional segmentations in the claim since all divisions and segmentations of a particular segment will be coaxial with that said particular segment. In the specification the applicant discloses for the three and two dimensional explanations that the segment is divided by a perpendicular (page 4, lines 22-24 as amended and page 5, lines 21-24 respectively) and describes the two dimensional construct using this perpendicular. However, a three-dimensional construct using the perpendicular is not described in the specification in a manner and is not shown in the drawings at all so as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same. Nor does the specification's three-dimensional construct using the perpendicular describe how the different bounding segments and shape

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changes of facets 40 and 41, as noted in paragraph 5 above, are achieved. It is noted that claims 13 and 20 include method limitations regarding the perpendicular but do not disclose any other method steps associated with the perpendicular which would clarify the problems stated above. Furthermore, it appears to the examiner that claim 1 and its dependent claims are directed to a manual manipulation of geometric evaluation constructs only.

Since the examiner cannot determine the invention from the drawings, the specification or the claims, no prior art is being applied to the claims.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 2 and 3: the claim language is indefinite because it is not clear to the examiner how "the volume of the object comprises images taken along parallel sections" in claim 2 and "wherein a plurality of images provides a description of the three-dimensional volume" in claim 3 is possible with the limitations for a method for estimating a volume of a three-dimensional object having a known contour described in claim 1. Is this a three dimensional estimation technique or a two dimensional manipulation and estimation technique adapted for three

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dimensional objects? According to amendment B, it appears that the images provide a known three dimensional contour and not the volume. The applicant needs to clarify these claims according to the applicant's intent.

Claim 15: "six first base points" should be --six said base points-- or --six first said base points-- since the applicant has clarified in amendment B that these base points are part of the base points in claim 1, line 4.

Claim 17: "any point" should be --any of the points-- since the applicant has clarified in amendment B that "any point" is drawn to base, second rank and third rank points.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

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calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Smith whose telephone number is (703) 305-0647. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



ANDREW H. HIRSCHFELD
PRIMARY EXAMINER

RAS

January 24, 2001